

REMARKS

This paper is submitted in response to the Office action mailed on September 22, 2006. This paper amends 9, 18 and 27. Accordingly, after entry of this Amendment and Response, claims 1-27 will be pending.

I. Claim Rejections Under 35 U.S.C. § 112

Claims 9, 18 and 27 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants have amended claims 9, 18 and 27 to replace “blocks” with “parcels”, which is believed to resolve the rejection. While the minor amendment does clarify the scope of the claims pursuant to 35 U.S.C. § 112, it is not believed that the amendment narrows or otherwise alters the inventive scope of the claims. Applicants believe claims 9, 18 and 27 are in condition for allowance.

II. Claim Rejections Under 35 U.S.C. § 103

Claims 1-3, 6-7, 10-12, 15-16, 19-21 and 24-25 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0068636 to Jacobson et al., which incorporates by reference U.S. Patent No. 5,392,244 to Jacobson et al. (hereafter collectively “Jacobson”) in view of U.S. Patent No. 5,737,743 to Ooe et al. (hereafter “Ooe”) further in view of U.S. Patent No. 5,345,575 to English et al. (hereafter “English”). Claims 4, 13 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobson in view of Ooe and English, and further in view of U.S. Patent No. 5,911,150 to Peterson et al. (hereafter “Peterson”). Claims 5, 14 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobson in view of Ooe, English and Peterson, and further in view of U.S. Patent No. 5,966,720 to Itoh et al. (hereafter “Itoh”). Claims 8, 17 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Jacobson in view of Ooe and English, and further in view of U.S. Patent No. 5,325,370 to Cleveland et al. (hereafter “Cleveland”).

A prima facie case of obviousness requires that the combination of references “must teach or suggest *all the claim limitations*.” See MPEP § 2143 (emphasis provided). For the reasons recited below, it is respectfully submitted that the combination of Jacobson, Ooe and English does not make any of the above listed claims obvious.

A. Independent claims 1, 10 and 19 are patentable over Jacobson in view of Ooe and further in view of English

Claims 1, 10 and 19 are independent claims from which all other pending claims depend. Accordingly, our initial arguments will focus on the independent claims.

1. The combination of Jacobson, Ooe and English fails to disclose that the larger size of the virtual logical data blocks provides additional storage space

Applicants submit that Jacobson, Ooe and English all fail, either individually, or when combined to teach or suggest that “the larger size of the virtual logical data blocks provides additional storage space” as recited by claim 1, and similarly recited by claims 10 and 19. The Examiner acknowledges that neither Jacobson nor Ooe teach or suggest such a limitation. See Office action mailed September 22, 2006, page 4, line 20 – page 5, line 1). Instead, the Examiner asserts that English discloses that “the larger size of the virtual logical data blocks provides additional storage space.” Applicants respectfully disagree with the Examiner’s assertion.

Specifically, the Examiner relies on column 3, lines 19-26 of English which discloses “a sequence of data packets [that includes] extra information [which] allows... for recover[y] from system failures and provides atomic updates of multiple block objects.” (emphasis provided). This “extra information” is merely a “logical block address, a sequence number, [or] a flag” and not additional storage space, as recited by claim 1. See *English*, col. 3, lines 21-23. Stated differently, English’s “extra information” is simply additional information included in the existing structure of each data packet in the sequence of data packets. Thus, the data packets in English do not “provide additional storage space” as in claim 1, but merely include extra information within existing data packets. Accordingly, all limitations of claim 1, and similarly of claims 10 and 19 are not disclosed, taught or suggested by the purported combination of Jacobson, Ooe and English. Thus, for at least this reason, claims 1, 10 and 19 are patentable under 35 U.S.C. § 103 over Jacobson in combination with Ooe and English.

2. The combination of Jacobson, Ooe and English fails to disclose the operation of mapping the virtual logical data blocks to the physical data storage blocks, wherein the virtual logical data blocks provide additional storage space

Applicants submit that the combination of Jacobson, Ooe and English all fail, either individually, or when combined to teach or suggest the operation of “mapping the virtual logical data blocks... to the physical data storage blocks, wherein... the virtual logical data blocks provid[e] additional storage space”, as recited by claim 1, and similarly recited by claims 10 and 19. Applicants submit that Jacobson discloses “implementing a mapping system... [that] associate[s]... virtual storage space with... physical storage space.” See *Jacobson*, page 3, paragraph 29. However, Jacobson’s mapping implementation is a one-to-one mapping implementation, and claim 1’s mapping implementation is not one-to-one. Jacobson’s one-to-one mapping implementation is evidenced by Jacobson’s figure 2 which discloses single virtual storage blocks being directly connected to single physical storage blocks by an arrow representation. See *Jacobson*, figure 2, reference signs 30 and 36. Specifically, claim 1’s mapping implementation “provides for additional space” because of

the virtual logical data blocks have a larger size than the physical logical blocks. Thus, the mapping in claim 1 is not one-to-one because the virtual storage space may map to more than one physical storage block. (See Specification, figure 1, for a visual representation of claim 1's mapping implementation). Accordingly, all limitations of claim 1, and similarly of claims 10 and 19 are not taught or suggested by the purposed combination of Jacobson, Ooe and English. Thus, for at least this additional reason, claims 1, 10 and 19 are patentable under 35 U.S.C. § 103 over Jacobson in combination with Ooe and English.

B. Dependent claims are non-obvious

Dependent claims 2-9, 11-18 and 20-27 depend upon and contain all the limitations of independent claims 1, 10 and 19, respectively. Therefore, for at least the reasons mentioned above, the combination of Jacobson, Ooe and English fails to disclose each and every limitation of claims 2-9, 11-18 and 20-27. As such, claims 2-9, 11-18 and 20-27 are patentable under 35 U.S.C. § 103 over Jacobson in combination with Ooe and English.

III. Conclusion

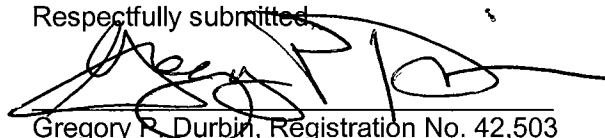
This Amendment is submitted contemporaneously with a petition for a two-month extension of time in accordance with 37 CFR § 1.136(a). Accordingly, please charge Deposit Account No. 04-1415 in the amount of \$450.00, for two-month extension of time fee. The Applicants believe no further fees or petitions are required. However, if any such petitions or fees are necessary, please consider this a request therefor and authorization to charge Deposit Account No. 04-1415 accordingly.

The Applicants thank the Examiner for his thorough review of the application. The Applicants respectfully submit the present application, as amended, is in condition for allowance and respectfully requests the issuance of a Notice of Allowability as soon as practicable.

If the Examiner should require any additional information or amendment, please contact the undersigned attorney.

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Respectfully submitted,



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